



“The Software”

software
Atmosphere Risk Analysis Gas Plus

Conforms to the standard IEC 60079-10-1 (2015-09 Edition 2.0) : Explosive atmospheres - Part 10-1 : Classification of areas - Explosive gas atmospheres) , CEI 31-35 Guide , NFPA Standard 78/79 , UNI EN 1127-1 , UNI CEI 70029 , NFPA Standard 78/79 , Directive 99/92 / EC (ATEX Directive) , TNO Yellow Book and the Industrial Ventilation manual : a manual of Recommended Practice for Design , 28th Edition ACGIH ® .

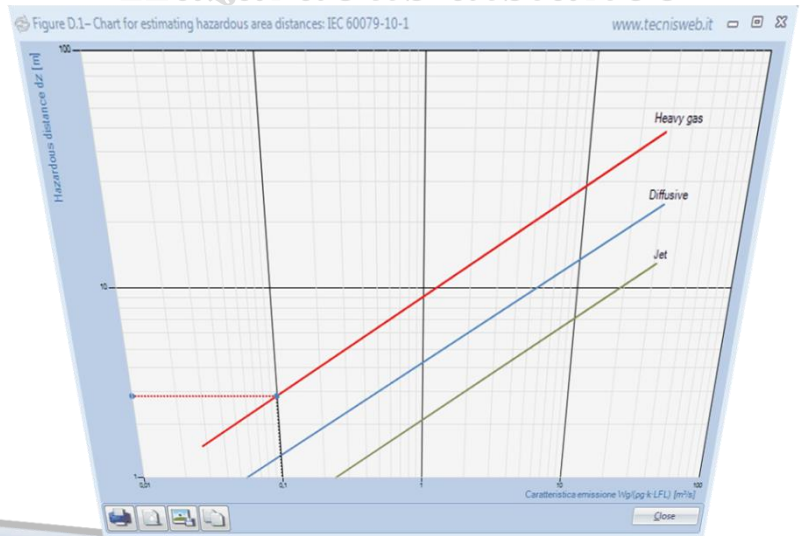
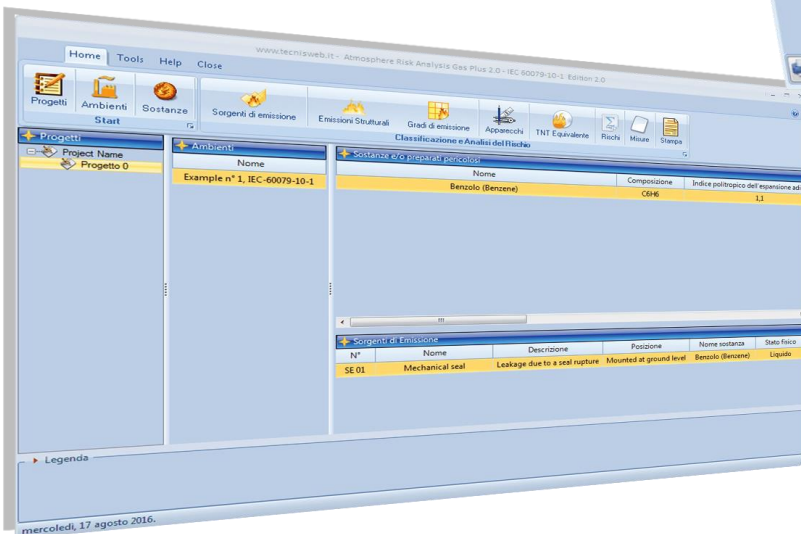



Risk classification and evaluation of the areas at risk of explosion due to the presence of gas / vapors and mists , the definition of technical measures for prevention , protection and organizational measures , the drafting of the " explosion protection document "

The software Atmosphere Risk Analysis Gas Plus (**AraGasPlus**) is a support tool to carry out all the necessary actions that an employer must comply with the Directive 99/92/EC concerning minimum requirements for improving work health and safety of employees at risk from explosive atmospheres

AraGasPlus is the only software that has fully implemented the Standard **IEC 60079-10-1 (2015-09 Edition 2.0)**: Explosive atmospheres - Part 10-1: Classification of areas - Explosive gas atmospheres, **TNO Yellow Book** and the **Industrial Ventilation manual**: a manual of Recommended Practice for Design, 29 th Edition ACGIH®, **CEI 31-35 Guide**, Standard **EN 1127-1**, Standard **NFPA 78/79**, **Directive 99/92/EC** (Directive ATEX),

Hazardous distance

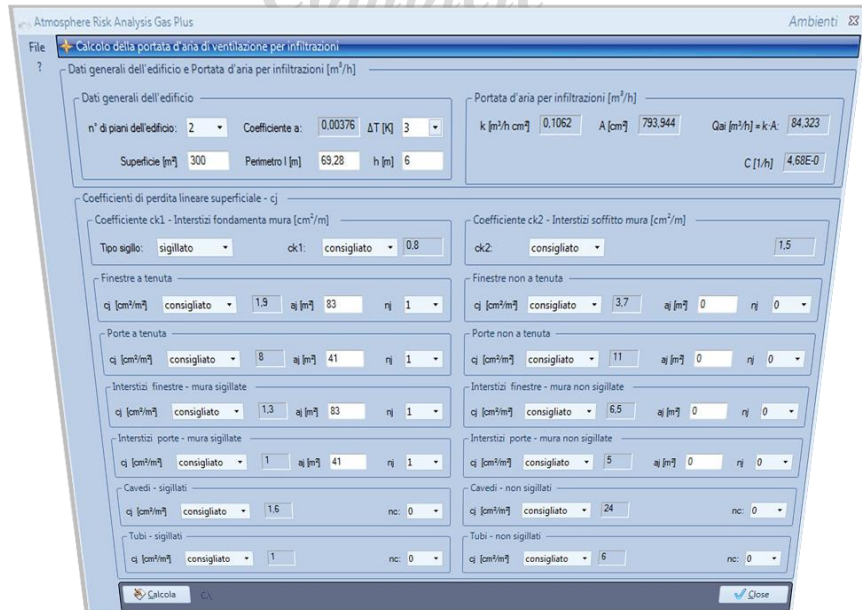



Ambienti		Sostanze e/o preparati pericolosi	
Nome	Composizione	Nome	Indice polipropico dell'esplosione adattato
Example n°1, IEC-60079-10-1	CG16	Benzolo (Benzene)	1.1

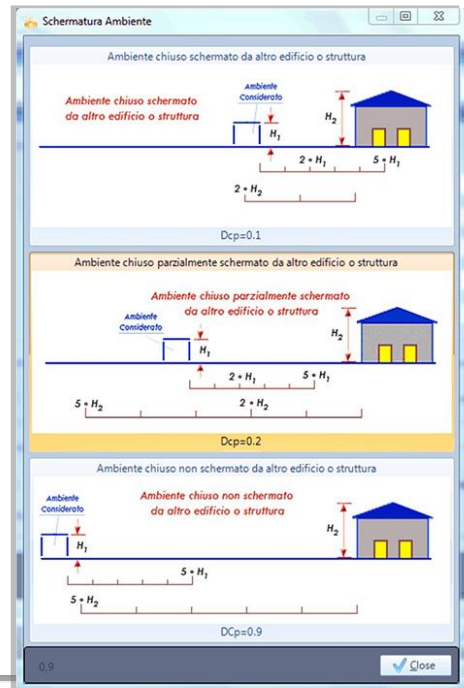
Sorgenti di Emissione					
N°	Nome	Descrizione	Posizione	Nome sostanza	Stato fisico
SE.01	Mechanical seal	Leakage due to a seal rupture	Mounted at ground level	Benzolo (Benzene)	Liquido

AraGasPlus is one of the information tools that helps the technicians in charge of the **Hazardous Location and risk analysis** of the areas at risk of explosion due to the presence of gases, vapors or inflammable mists as well as the manufacturers of products, the employers, the designers of electrical and non-electrical systems, the security officers and auditors.

“Complete”

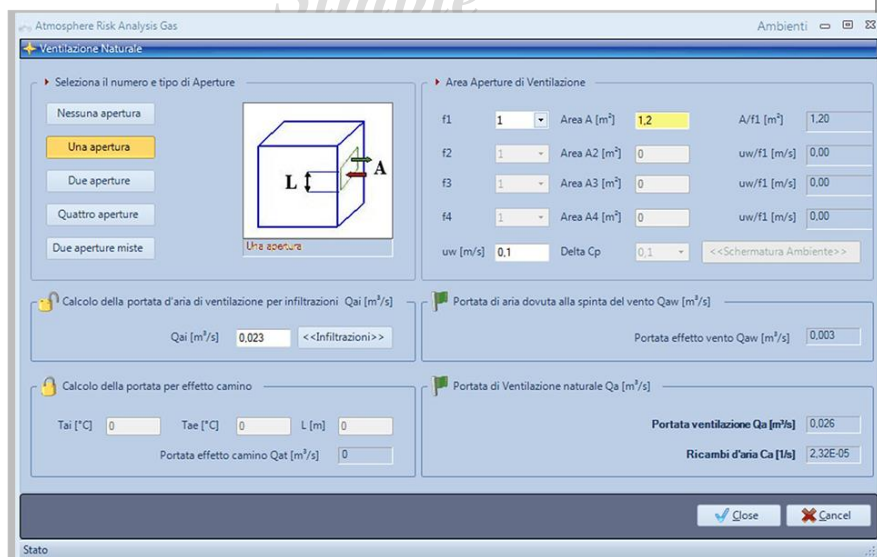


AraGasPlus calculates air changes in the environment due to infiltration: depending on the construction characteristics of the building of which the area belongs to (without specific fixed ventilation openings or extraction systems, or large heat emission).

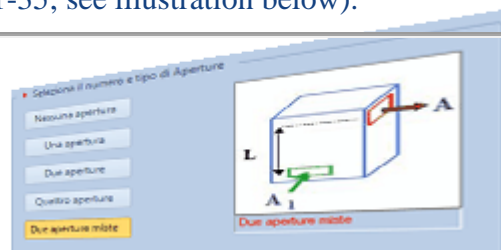


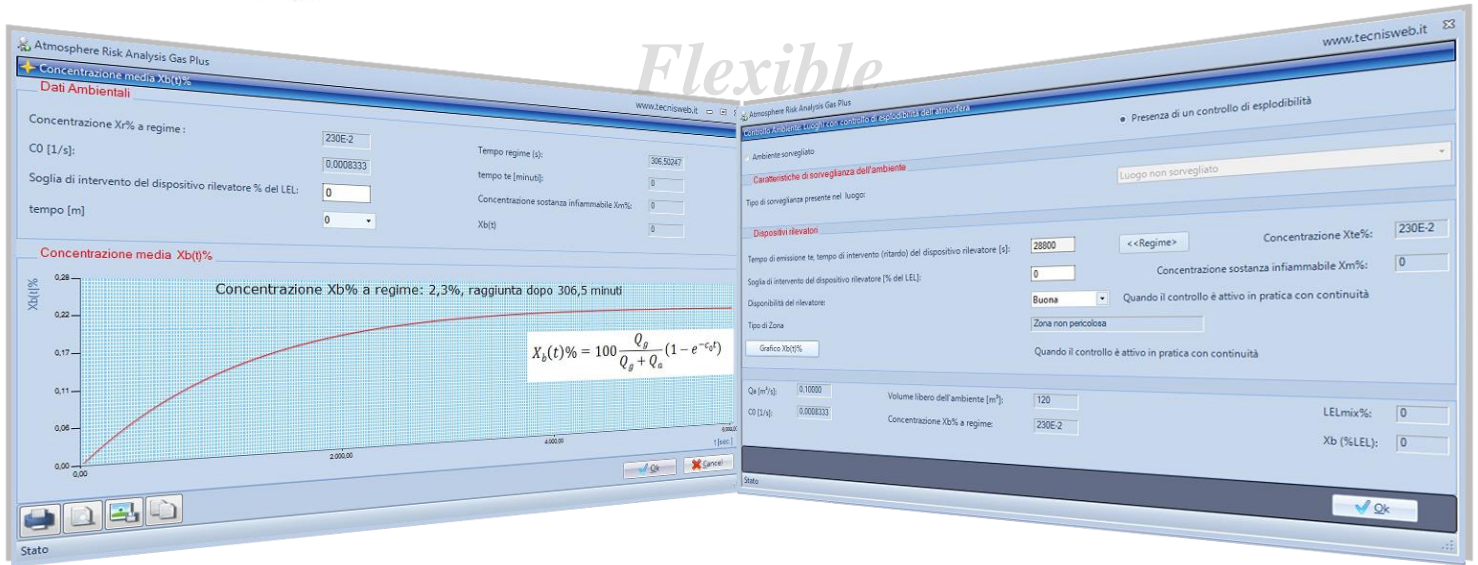
AraGasPlus allows you to define the type of environment shielding (shielded environment, partially shielded or unshielded) which affects the calculation of natural air flow.

“Simple”



AraGasPlus The technician is guided with the compilation of data using values suggested through a simple graphical interface, immediate and intuitive; offering alternatives internationally claimed by experts in the field (eg. two openings on adjacent sides not provided for by guide CEI 31-35; see illustration below).



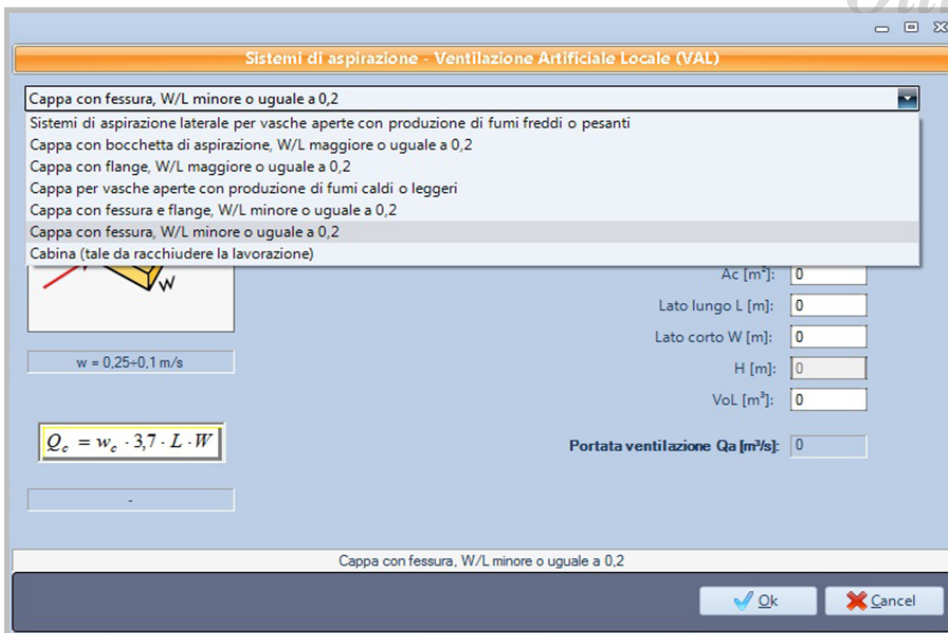


Flexible

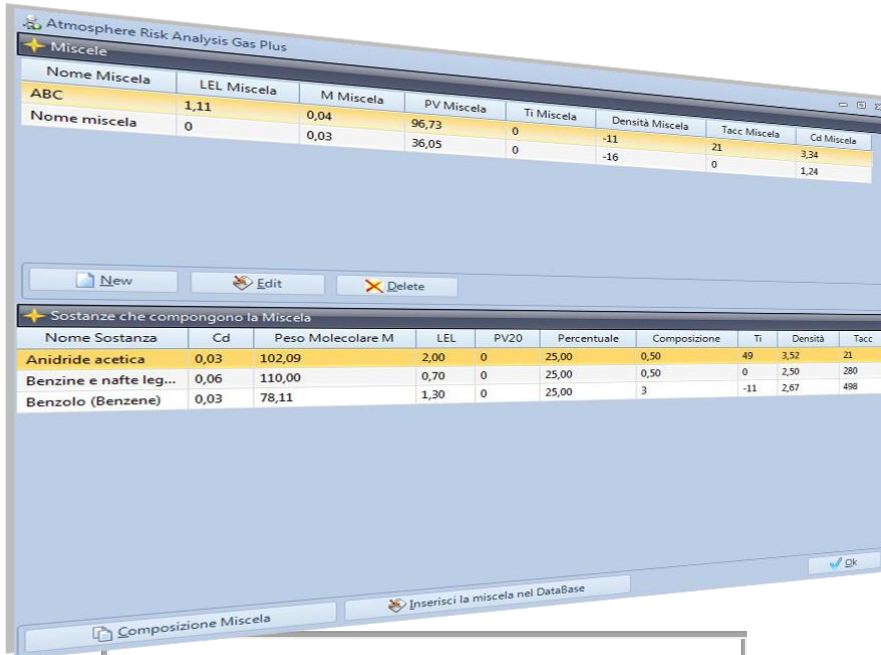
AraGasPlus, displays graphically, the average concentration of the inflammable substance $X_b(t) \%$. The optimization of the calibration of the detectors devices of flammable substances can also be performed graphically interacting with the $X_b(t) \%$ curve.

AraGasPlus allows to interact with the emission time t (s) in order to optimize the setting of the flammable gas detectors.

Ottimizzazione



AraGasPlus in addition to considering as local exhaust ventilation, that required by Guide CEI 31, 35, also considers other different types of local exhaust ventilation systems (eg. See illustration) thus having greater flexibility both in the declassification of the Zone and in the reduction of dangerous distance " d_z ".



Miscela

Nome Miscela	LEL Miscela	M Miscela	PV Miscela	Ti Miscela	Densità Miscela	Tacc Miscela	Cd Miscela
ABC	1,11	0,04	96,73	0	-11	21	3,34
Nome miscela	0	0,03	36,05	0	-16	0	1,24

Sostanze che compongono la Miscela

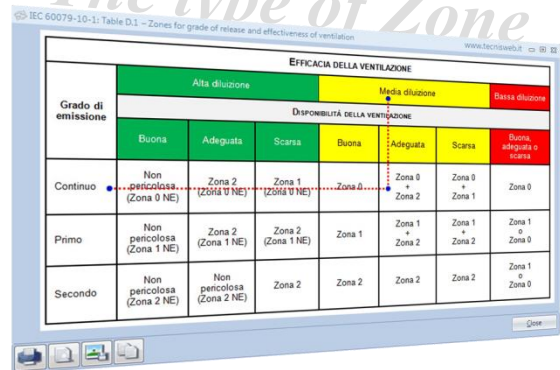
Nome Sostanza	Cd	Peso Molecolare M	LEL	PV20	Percentuale	Composizione	Ti	Densità	Tacc
Anidride acetica	0,03	102,09	2,00	0	25,00	0,50	49	3,52	21
Benzine e nafte leg...	0,06	110,00	0,70	0	25,00	0,50	0	2,50	280
Benzolo (Benzene)	0,03	78,11	1,30	0	25,00	3	-11	2,67	498

"The mixtures"

It has been studied and included a special section for mixtures of flammable substances. The user may enter more flammable substances and form one mixture whose chemical - physical characteristic, for the purposes of **Zone Hazardous Location** of explosion risk, is calculated from **AraGasPlus**; the mixture is considered as a single substance.

The definition of a **Mixture** greatly simplifies the technician's work responsible for the **Zone Hazardous Location** and analysis of explosion risk in the workplace.

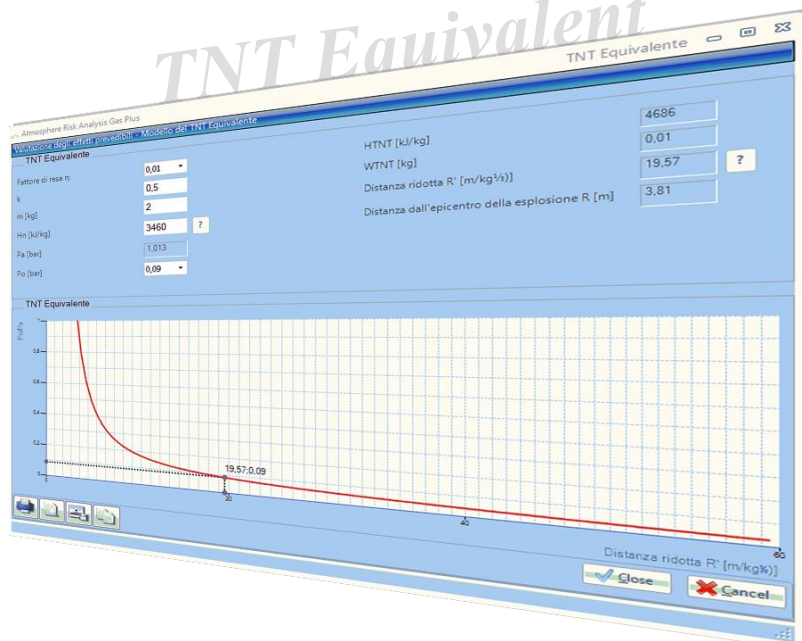
The type of Zone



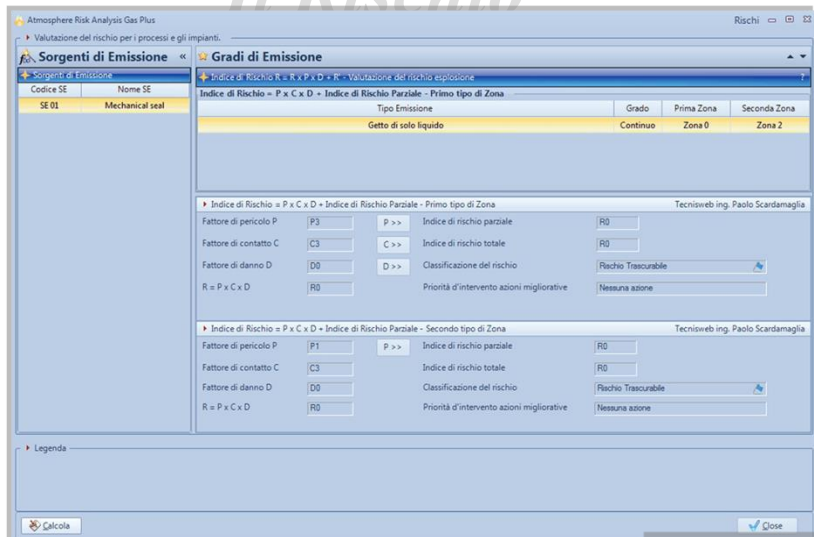
Grado di emissione	EFFICACIA DELLA VENTILAZIONE					
	Alta diluizione		Media diluizione		Bassa diluizione	
	Buona	Adeguate	Scarsa	Buona	Adeguate	Scarsa
Continuo	Non pericolosa (Zona 0 NE)	Zona 2 (Zona 0 NE)	Zona 1 (Zona 0 NE)	Zona 0 + Zona 2	Zona 0 + Zona 1	Zona 0
Primo	Non pericolosa (Zona 1 NE)	Zona 2 (Zona 1 NE)	Zona 1 (Zona 1 NE)	Zona 1 + Zona 2	Zona 1 + Zona 2	Zona 1 + Zona 0
Secondo	Non pericolosa (Zona 2 NE)	Non pericolosa (Zona 2 NE)	Zona 2	Zona 2	Zona 2	Zona 1 + Zona 0

AraGasPlus enables to estimate the likely effects of explosions through the **TNTeq method** (trinitrotoluene equivalent method)

TNT Equivalent



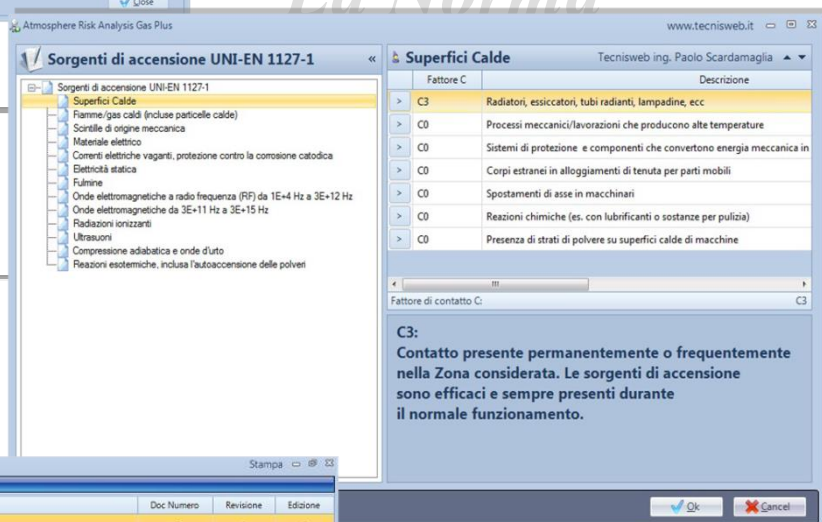
“Il Rischio”



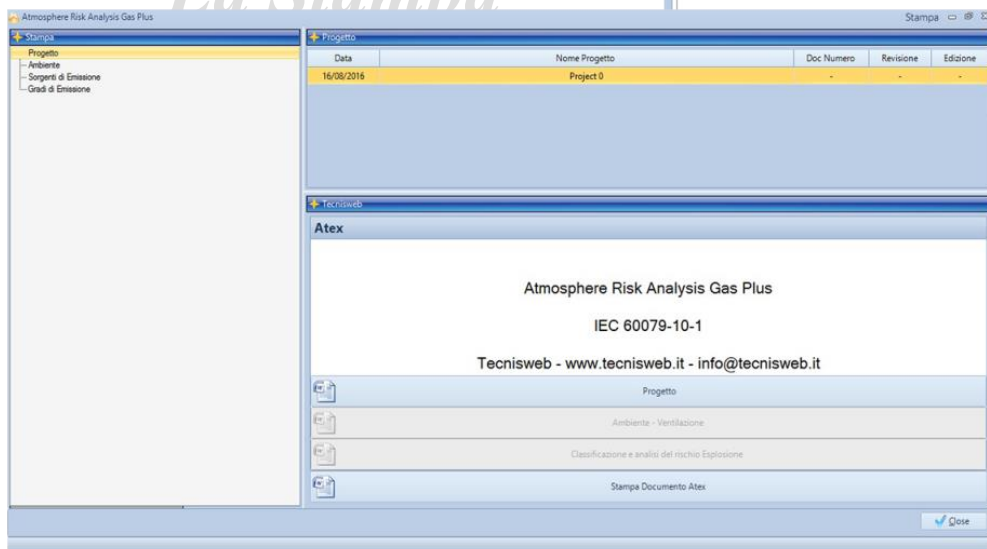
In **AraGasPlus** the analysis of explosion risk has been revised and updated taking into account the scale of the anticipated effects (potential damage).

“La Norma”

AraGasPlus allows to enter all of the equipment (with its power sources indicated in the **EN 1127-1**) inside the classified area



“La Stampa”



AraGasPlus Allows to Print both single forms or the **explosion protection document** in Microsoft Word

Software pricing: 1500 euro + VAT

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